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(71) Applicant (for all designated States except US): DEN  
KGL.VETERINÆR-OG LANDBOHØJSKOLE  
[DK/DK]; Bülowsvej 17, DK-1870 Frederiksberg C (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): RØMER, Maria

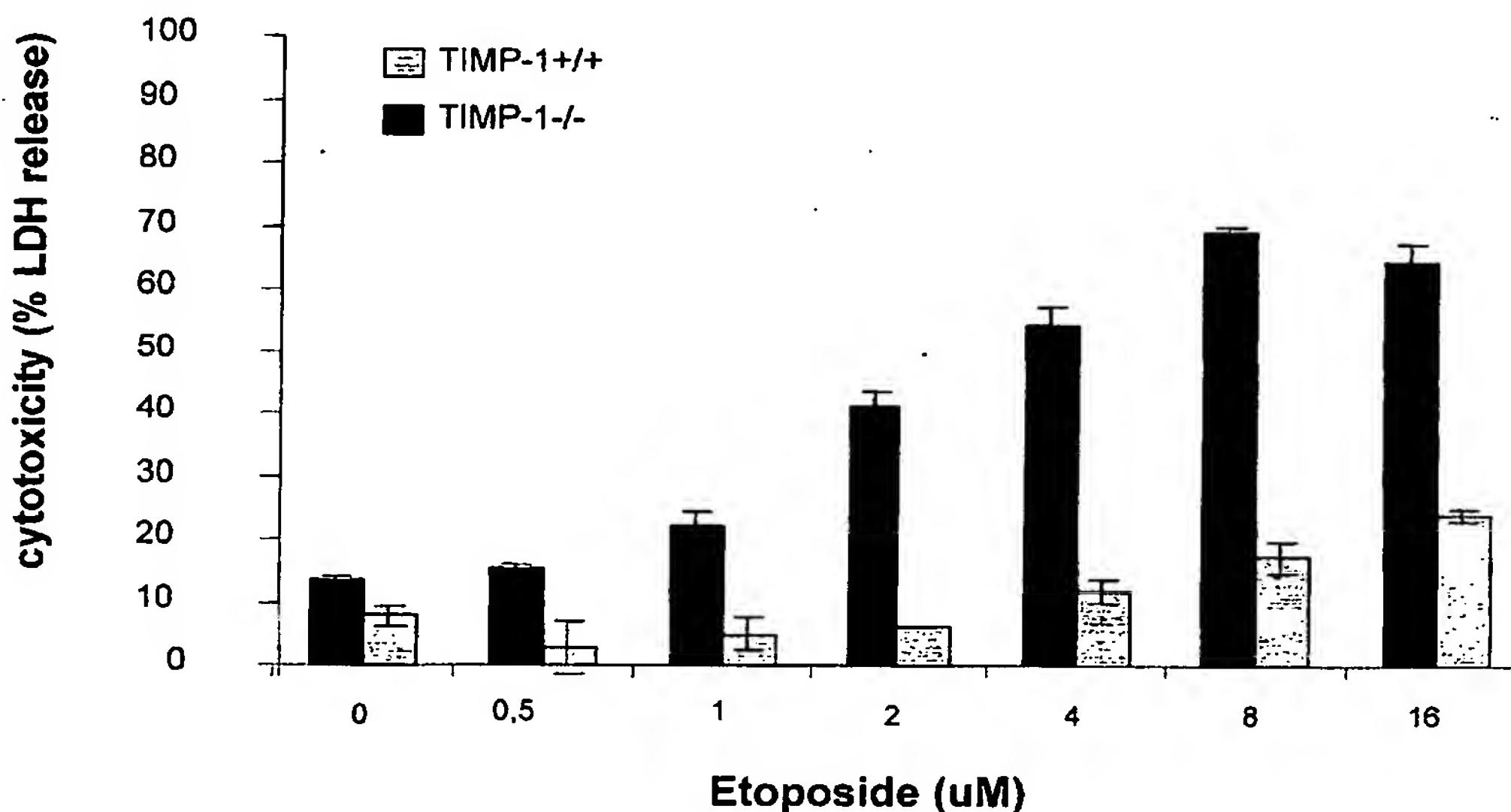
Unni [DK/DK]; Ved Volden 10, 5.th., DK-1425 Copenhagen K (DK). LADEMANN, Ulrik Axel [DK/DK]; Gladsaxevej 34, 2.tv., DK-2860 Søborg (DK). HOFLAND, Kenneth Francis [DK/DK]; Koldinggade 20, 4.th., DK-2100 Copenhagen Ø (DK). JENSEN, Peter Buhl [DK/DK]; Maglehøj 100, DK-3520 Farum (DK). VAN GELDER, Marioin Ellen Meijer [NL/NL]; Jan Tooropstraat 65, NL-3262 TG Oud-Beijerland (NL). FOEKENS, Johannes Albert [NL/NL]; Filosofentuin 35, NL-2908 XA Capelle aan den IJssel (NL). RASMUSSEN, Anne-Sofie Schrohl [DK/DK]; Hindegade 8,3.tv., DK-1303 Copenhagen K (DK). BRÜNNER, Nils Age [DK/DK]; Tranvænget 8,3.tv., DK-2900 Hellerup (DK). USHER, Pernille Autzen [DK/DK]; Trepkasgade 4, 4.th., DK-2100 Copenhagen Ø (DK).

(74) Agent: INSPICOS A/S; Bøge Allé 3, DK-2970 Hørsholm (DK).

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*[Continued on next page]*

(54) Title: IMPROVEMENTS IN CANCER TREATMENT AND CANCER TREATMENT EFFICACY PREDICTION BY BLOCKING AND DECTING PROTEASE INHIBITORS



(57) Abstract: Disclosed is a method for improving cancer therapy that relies on induction of apoptosis in malignant cells. It has been found that docking of protease inhibitors PAI-1 and TIMP-1 renders malignant cells expressing these inhibitors more sensitive to apoptosis, whereas non-malignant cells do not change their sensitivity to apoptosis induction. It is therefore possible to increase the effect of various anti-cancer treatments in a rational manner and to predict whether or not an apoptosis-inducing cancer treatment will be effective in a patient or not. The invention also provides for methods of identifying agents that inhibit the apoptosis sensitivity modulating effects of protease inhibitors and to methods of identifying anti-cancer compounds that are not dependent on an apoptosis inducing mechanism which can be modulated by protease inhibitors.

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